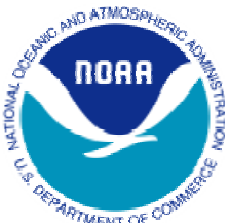


NOAA CLIMATE SERVICE

Regional Climate Services

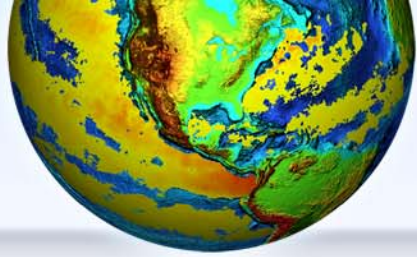


Eileen L. Shea

Chief, Climate Services Division, NCDC, NOAA

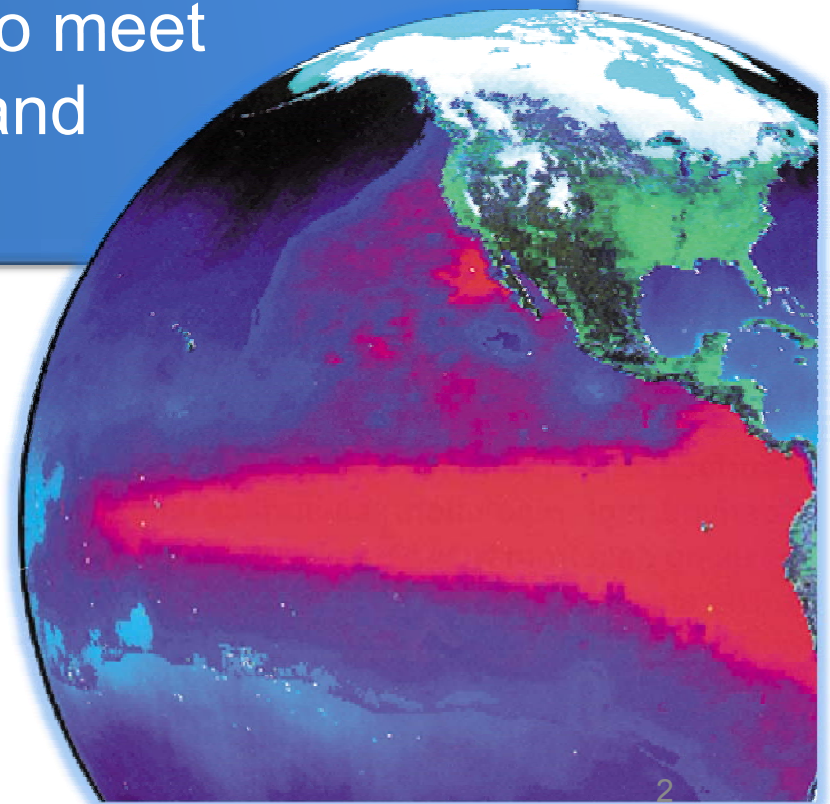
NOAA in the Carolinas Meeting

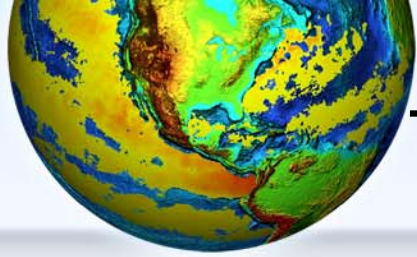
April 20, 2010



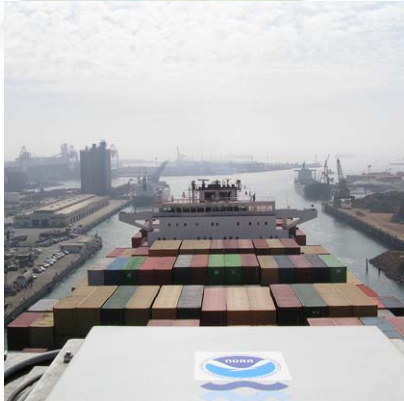
NOAA's Mission

To understand and predict changes in Earth's environment and conserve and manage coastal and marine resources to meet our nation's economic, social, and environmental needs





The Rising Demand for Climate Services



Commerce



Coasts



Recreation



Ecosystems



Hydropower



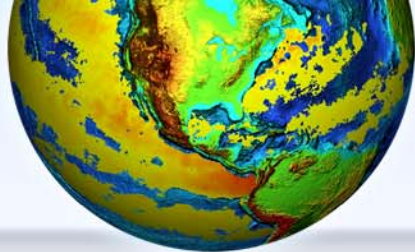
Farming



Wind Energy



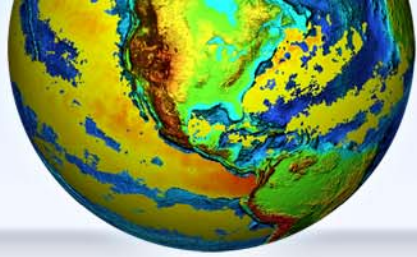
Private Sector



Meeting the Rising Demand for Climate Services

1. NOAA's existing framework for climate was established before climate services were recognized as essential, and is not optimized for climate service delivery.
2. While NOAA has continued to build its suite of climate services within its existing framework, including our interagency approach to delivering drought information services, much of the demand remains unmet.
3. To meet climate service demands, NOAA must direct efforts to develop a framework that will:
 - Connect users to existing climate products and services, while continuing to develop new authoritative, reliable services;
 - Transform current science and data into understandable, usable and accessible information;
 - Actively engage users in service development.
4. NOAA's climate framework must deliver needed climate services while maintaining leadership in observing, research, modeling and assessments

"If America is to avoid the most damaging effects of climate change, we have to first understand it – and that is where the Department of Commerce is instrumental." - Secretary of Commerce, Gary Locke



NOAA Climate Service Proposal

VISION

NOAA Envisions an Informed Society Anticipating and Responding to Climate and its Impacts

MISSION

Advance understanding and communication of climate to inform decisions about mitigation and adaptation *

- ☑ Support decision makers regionally to globally, on time scales of weeks to decades, in areas including public policy, resource management, infrastructure investment, business development, and decisions of individuals in their daily lives

* Still under development.

GOALS

Continue to Grow, Evaluate and Evolve NOAA's Core Competencies in Three Key Areas:*

- ☑ Deliver Sustained & Effective Services
- ☑ Promote Partnerships
- ☑ Ensure Communication
- ☑ Advance Climate Science

***NOAA commits to
providing critical
assets in science
and service to a
Federal partnership***



Information Delivery and Decision Support

NOAA uses its national and regional infrastructure to deliver climate services today

Assessments of Climate Change and Impacts

NOAA is a leader in national and regional climate impact assessments

Over 70% of Federal IPCC AR4 WG1 authors were from NOAA

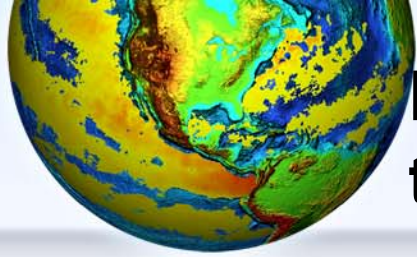
Climate Change Research and Modeling

Internationally recognized models of the global climate

Climate Observations and Monitoring

NOAA operates over 90 observation and monitoring systems

NOAA is mandated to monitor and provide access to climate data and information



Effectively Anticipating and Responding to a Changing Climate Requires...

A continuously evolving understanding of the integrated *climate-society system*¹ to address today's challenges and plan for the future

and

An adaptive management approach that provides for regular evaluation and adjustment of decisions as new scientific insights emerge and socio-economic conditions change

¹ With thanks to Mickey Glantz

Federal Regional Climate Service Enterprise

Connecting Science, Services and People

State and Local Engagement, Education & Service Delivery

- Weather Forecast Offices
- Sea Grant Education & Extension
- Marine Sanctuaries, Monuments & Estuarine Reserves
- River Forecast Centers
- Data Centers
- DOC Commerce Connect (in development)
- Other agencies (e.g., National Science Foundation, Dept. of Education, Health & Human Services, Dept. of Energy, Dept of Interior, Dept of Agriculture)
- Dept. of Agriculture Extension
- State Climatologists
- Federal Protect Area Programs
- USGCRP Climate Literacy Partners
- Etc...

Regional Climate Services Partnerships

- NOAA Regional Climate Service Programs
 - Weather Service Regions
 - Regional Climate Centers
 - Coastal Services Center
 - River Forecast Centers
 - Regional Collaboration Teams
 - Data Centers
- Relevant Regional Offices from other agencies (e.g., Environmental Protection Agency, Dept. of Agriculture, Dept. of Interior, Health and Human Services, Dept. of Transportation, Dept of Energy, etc.)

Regional Climate Science

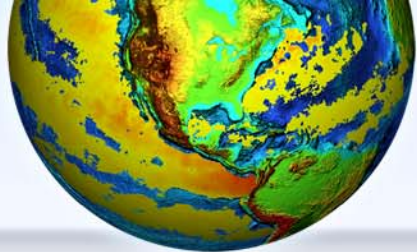
- Regional Integrated Science & Assessments (RISA)
- NOAA Labs
- Sea Grant
- Cooperative Institutes
- Applied Research Centers
- Data Centers
- Other agencies (e.g., National Aeronautics and Space Administration, Dept. of Interior, Dept. of Agriculture, National Science Foundation & other USGCRP agencies)
- Etc...

USER ENGAGEMENT

- Development, Delivery & Evaluation of Products & Tools
- Understanding and Translating User Needs
- Informing Program Requirements

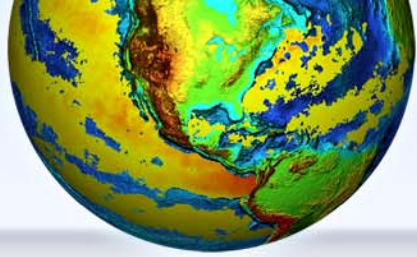


Government
Private Sector
Academia
NGO's



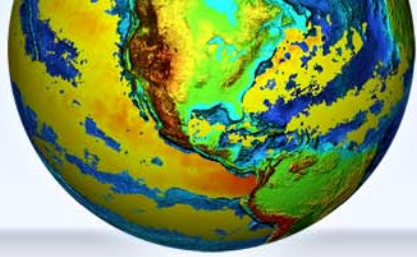
NCS Regional Climate Service Enterprise: Key Objectives (Regional Products & Services)

- Develop, deliver and communicate *problem-focused* products, information services and decision support tools
- Connect users to existing climate products and services while continuing to develop new, authoritative, reliable services



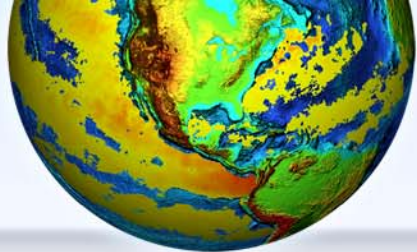
NCS Regional Climate Service Enterprise: Key Objectives (Regional Science)

- Support decision-making by providing *place-based information and assessments* that advance understanding of regional and sectoral climate impacts and risks in coordination with USGCRP and other national and regional programs
- *Promote scientifically-based adaptation and mitigation support* by building and integrating NOAA's climate science capabilities



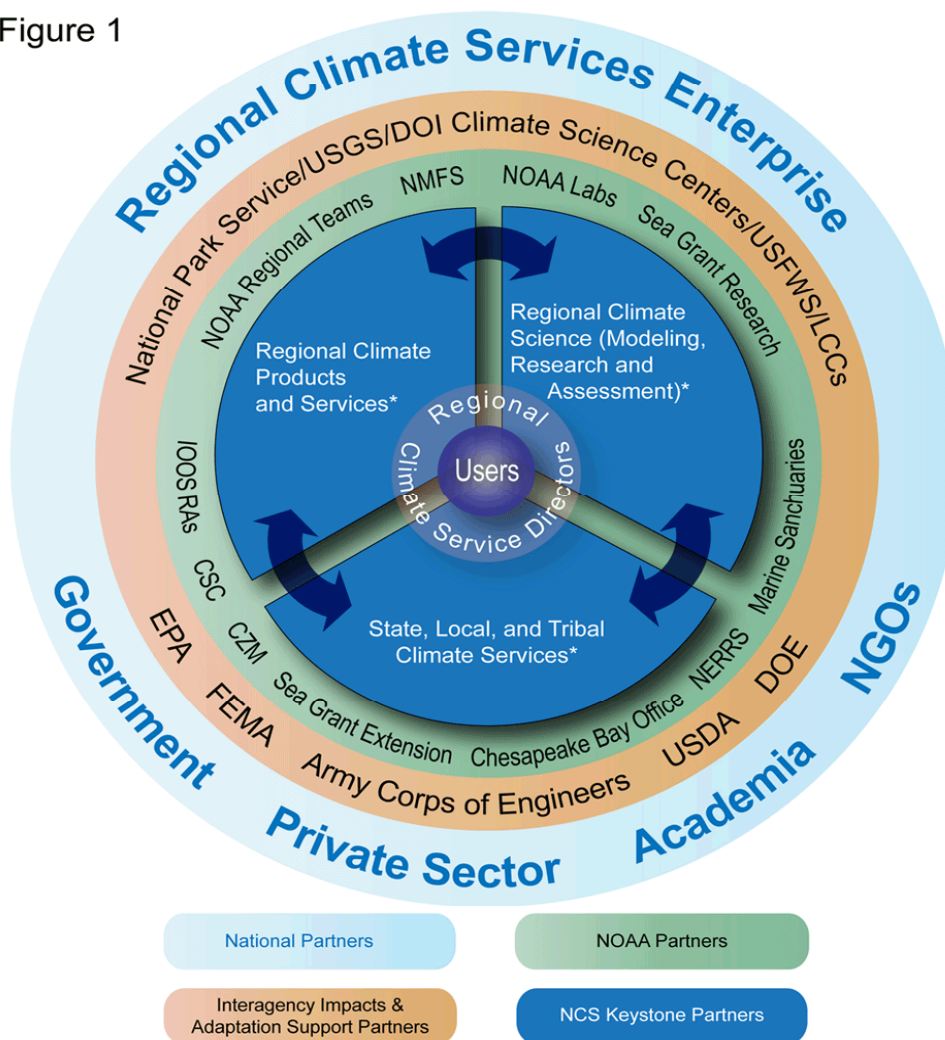
NCS Regional Climate Service Enterprise: Key Objectives (State, Local and Tribal Engagement and Services)

- Build a robust, *service-centric* program that ensures that *users are actively engaged* in service development through sustained engagement, dialogue and collaboration with users
- Improve the integration of climate science and services across the nation's climate service enterprise by promoting partnerships that *leverage the assets of all levels of government, academia, NGOs and the private sector*

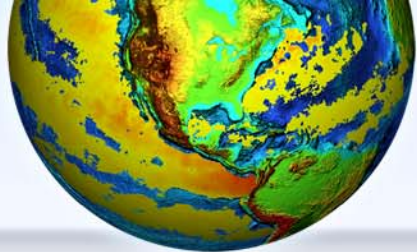


Regional Climate Services Enterprise: A Conceptual Pearl

Figure 1



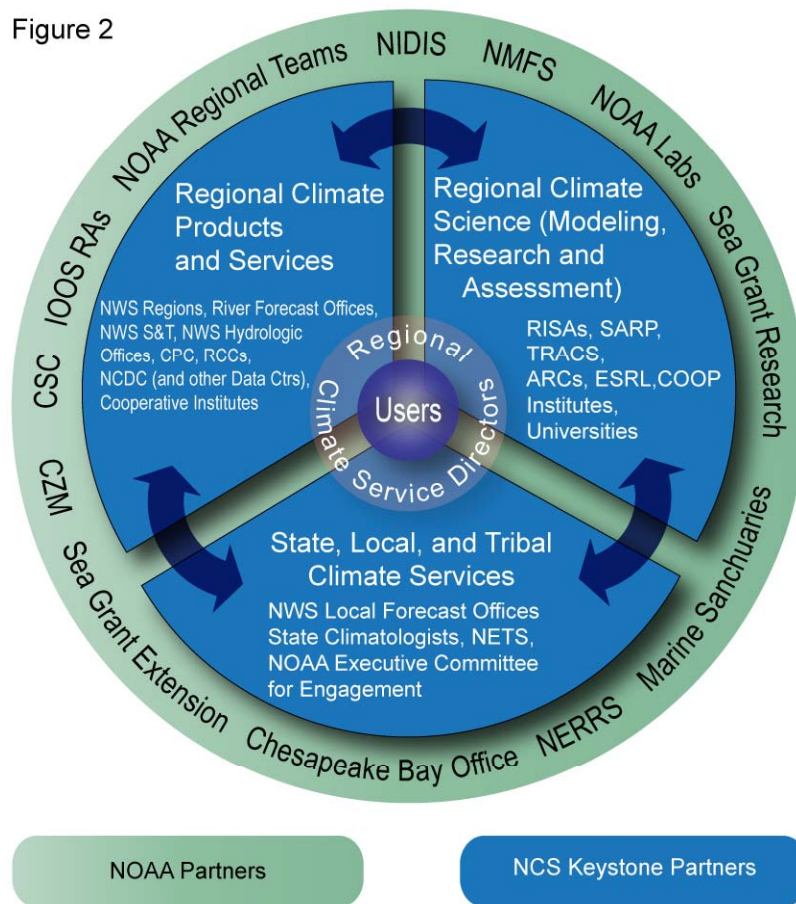
*See Figure 2 for details

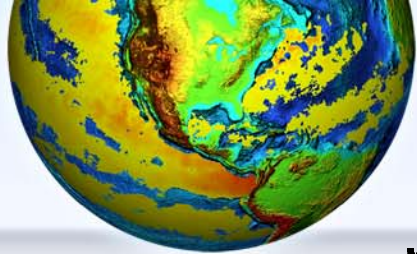


Regional Services Requirements to Meet Objectives

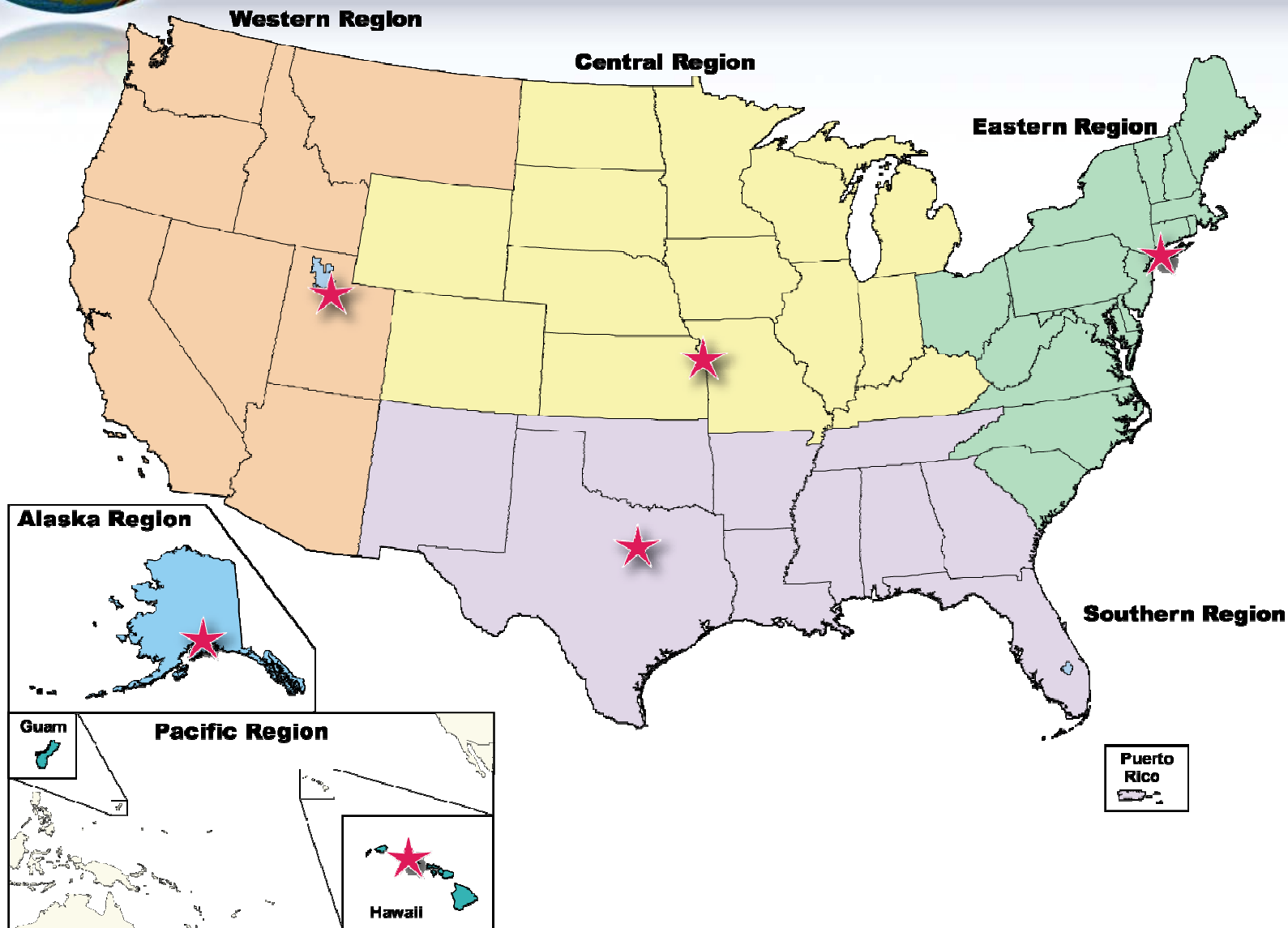
- Engagement of core partners and customers in program evolution
- Establishment of multi-partner Regional Climate Service Enterprise

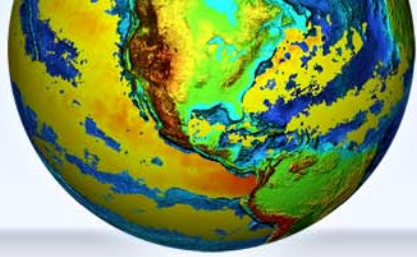
Figure 2





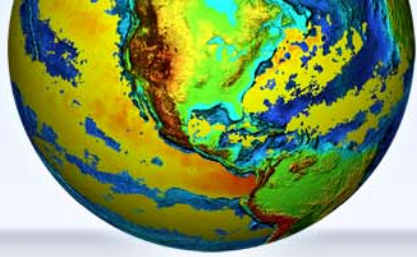
Regional Climate Service Directors





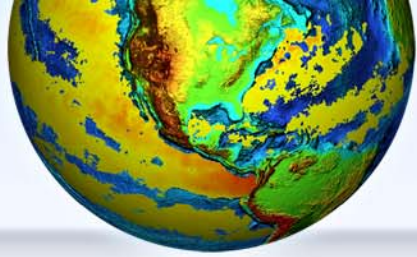
Establishment of New Regional Positions

- NOAA has created 6 new Regional Climate Service Director positions
- Announcements are posted on USAJOBS (February 9th, 2010)
- The primary functions include:
 - Responsibility for providing leadership in the development of an integrated NOAA program of climate services on a regional scale that responds to the needs of stakeholders and draws upon agency-wide assets and capabilities.
 - Management of the development and execution of a Regional Climate Services Strategic Plan that combines the unique assets and special capabilities of NOAA programs working with regional partners in other Federal agencies, state, local and tribal governments, universities, the private sector and NGOs.



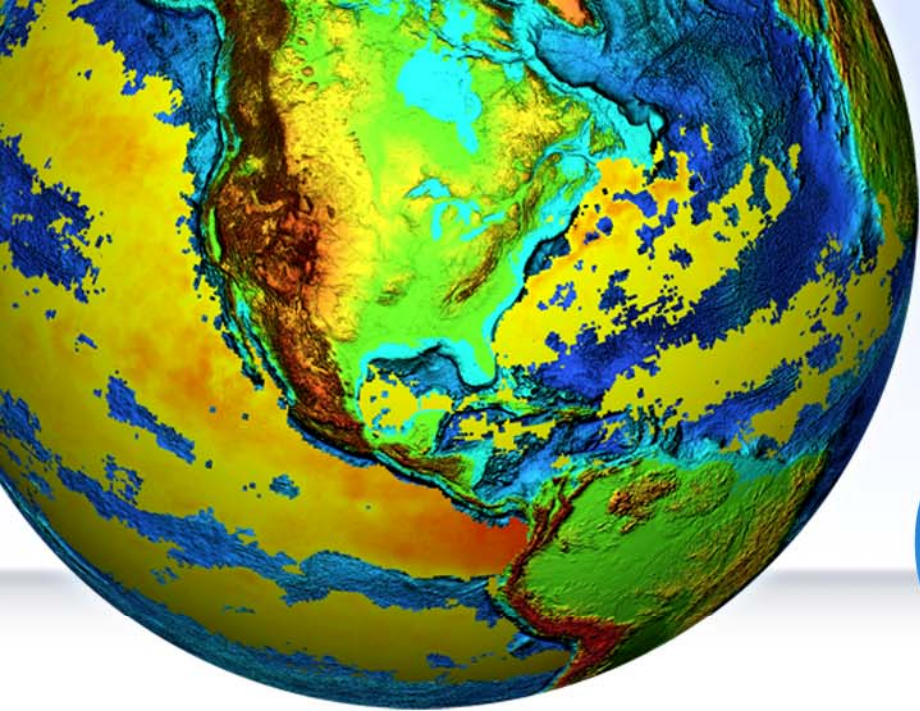
Regional Services Requirements to Meet Objectives

- **Definition of and support for regional dimensions of issue-focused information services (NIDIS/water, sea level rise/inundation, marine/coastal resources, others)**
 - Historical context (data analysis)
 - Current conditions (observations & monitoring)
 - Future projections (regional modeling, statistical analyses)
- **Enhanced understanding of impacts, vulnerability and response options and constraints (multi-disciplinary, participatory process; all of NCS plus other partners)**
- **Development of meaningful performance metrics and evaluation mechanisms (program effectiveness)**



Next Steps...

- NOAA submits a reprogramming package to DOC, OMB, Congress
 - No new Legislation required, but..
 - Congressional Appropriation Budget Breakout approval necessary
 - Consolidated Appropriations Act 2010
 - ✓ National Academy of Public Administration
 - ✓ ‘Study and analyze organizational options for a National Climate Service within NOAA’
 - ✓ To be completed summer 2010
- If approved, we can move quickly to begin implementing the reorganization
 - Movement toward Regional Climate Services Enterprise already begun
- We look forward to having NOAA Climate Service up and running by the beginning of FY11.



NOAA CLIMATE SERVICE

Questions?

Thank you!